



Substitute for form 1449/PTO

**SECOND SUPPLEMENTAL  
INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 1 of 9

**Complete if Known**

Application Number	10/060,086
Filing Date	January 31, 2002
First Named Inventor	Sanjiv GARG
Art Unit	2154
Examiner Name	Larry D. Donaghue
Attorney Docket Number	2047.0600007

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
J ↑	US1	5,125,092	06/23/1992	Prener	
	US2	5,214,786	05/25/1993	Watanabe et al.	
	US3	5,133,077	07/21/1992	Karne et al.	
	US4	5,093,783	03/03/1992	Kitada	
	US5	07/259,345	10/18/1988	Barbour	
	US6	4,128,880	12/1978	Cray, Jr.	
	US7	4,212,076	07/1980	Conners	
	US8	4,626,989	12/1986	Torii	
	US9	4,675,806	06/1987	Uchida	
	US10	4,722,049	01/1988	Lahti	
	US11	4,807,115	02/1989	Torng	
	US12	5,125,092	06/1992	Prener	
	US13	5,201,056	04/1993	Daniel et al.	
	US14	5,226,126	07/1993	McFarland et al.	
	US15	5,230,068	07/1993	Van Dyke et al.	
	US16	5,241,636	08/1993	Kohn	
	US17	5,442,757	08/1995	McFarland et al.	
	US18	5,487,156	01/1996	Popescu et al.	
	US19	5,493,687	02/1996	Garg et al.	
	US20	5,560,035	09/1996	Garg et al.	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T 6
		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				
J ↑	FP1	JP 2-226342	09/07/1990			
	FP2	JP-A-62-242243	10/22/1987			
	FP3	JP-A-1-142831	06/05/1989			
	FP4	JP-A-1-199233	08/10/1989			
	FP5	JP-A-60-144830	07/31/1986			
	FP6	JP-A-61-40650	02/26/1986			
	FP7	JP-A-2-118757	05/07/1990			
	FP8	JP-A-2-224025	09/06/1990			
	FP9	JP 2-211534	08/22/1990			
	FP10	JP 57-57345	04/06/1982			
	FP11	JP-3-35324	02/15/1991			

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<b>SECOND SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> (Use as many sheets as necessary)				Application Number	10/060,086
				Filing Date	January 31, 2002
				First Named Inventor	Sanjiv GARG
				Art Unit	2154
				Examiner Name	Larry D. Donaghue
Sheet	2	of	9	Attorney Docket Number	2047.0600007

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<i>JP</i>	US21	5,561,776	10/1996	Popescu <i>et al.</i>	
<i>JP</i>	US22	5,592,636	01/1997	Popescu <i>et al.</i>	
	US23	5,625,837	04/1997	Popescu <i>et al.</i>	
	US24	5,627,983	05/1997	Popescu <i>et al.</i>	
	US25	5,682,546	10/1997	Garg <i>et al.</i>	
	US26	5,708,841	01/1998	Popescu <i>et al.</i>	
	US27	5,768,575	06/1998	McFarland <i>et al.</i>	
	US28	5,797,025	08/1998	Popescu <i>et al.</i>	
	US29	5,832,293	11/1998	Popescu <i>et al.</i>	
	US30	5,838,986	11/1998	Garg <i>et al.</i>	
	US31	6,044,449	03/2000	Garg <i>et al.</i>	
<i>JP</i>	US32	6,249,856 B1	06/2001	Garg <i>et al.</i>	
	US33	2001/0034823 A1	10/2001	Garg <i>et al.</i>	
	US34				
	US35				
	US36				
	US37				
	US38				
	US39				
	US40				

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<i>JP</i>	FP12	EP 0 170 284 A2	02/1986			
<i>JP</i>	FP13	EP 0 213 843 A2&A3	03/1987			
<i>JP</i>	FP14	EP 0 241 909 A2	10/1987			
<i>JP</i>	FP15	EP 0 454 636 A1	10/1991			
<i>JP</i>	FP16	GB 2 190 521 A	11/1987			
	FP17					
	FP18					
	FP19					
	FP20					
	FP21					

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	NPL1	Patent Abstracts of Japan, Publication No. 02-226342, English Language Abstract for JP Patent Application No. 02-001127, (1 page).	
	NPL2	Patent Abstracts of Japan, Publication No. 62-242243, English Language Abstract for JP Patent Application No. 61-085442, (2 pages).	
	NPL3	English Language Abstract for JP Patent Publication No. 1-142831, (1 page).	
	NPL4	English Language Abstract for JP Patent Publication No. No. 1-199233.	
	NPL5	Patent Abstracts of Japan, Publication No. 60-144830, English Language Abstract for JP Patent Application No. 59-000424, (2 pages).	
	NPL6	Patent Abstracts of Japan, Publication No. 61-40650, English Language Abstract for JP Patent Application No. 59-163061, (1 page).	
	NPL7	Patent Abstracts of Japan, Publication No. 2-118757, English Language Abstract for JP Patent Application No. 63-271010, (2 pages).	
	NPL8	Patent Abstracts of Japan, Publication No. 2-224025, English Language Abstract for JP Patent Application No. 01-270136, (1 page).	
	NPL9	Patent Abstracts of Japan, Publication No. 02-211534, English Language Abstract for JP Patent Application No. 01-031652, (2 pages).	
	NPL10	Patent Abstracts of Japan, Publication No. 57-057345, English Language Abstract for JP Patent Application No. 55-132633, (2 pages).	

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				Filing Date	January 31, 2002
				First Named Inventor	Sanjiv GARG
				Art Unit	2154
				Examiner Name	Larry D. Donaghue
Sheet	4	of	9	Attorney Docket Number	2047.0600007

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume number, publisher, city and/or country where published	T <sup>2</sup>
	NPL11	English Language Abstract for JP Patent Publication No. 3-35324, (1 page).	
	NPL12	Japanese language copy of the Notice of Rejection and the English language translation, issued by the Japanese Patent Office in Appl. No. 5-502403, dated July 22, 2003 (10 pages).	
	NPL13	Japanese language copy of the Notice of Rejection and the English language translation, issued by the Japanese Patent Office in Appl. No. 5-502403, dated March 2, 2004 (9 pages).	
	NPL14	Japanese language copy of the Notice of Rejection and the English language translation, issued by the Japanese Patent Office in Appl. No. 2004-010369, dated June 1, 2005 (9 pages).	
	NPL15	Acosta, R. D. et al., "An Instruction Issuing Approach to Enhancing Performance in Multiple Functional Unit Processors," <i>IEEE Transactions On Computers</i> , IEEE, Vol. C-35, No. 9, September 1986, pp. 815-828.	
	NPL16	Adams, R.G. et al., "Utilising low level parallelism in general purpose code: the HARP project," <i>Microprocessing and Microprogramming</i> , Elsevier Science Publishers, B.V., Vol. 29, No. 3, October 1990, pp. 137-149.	
	NPL17	Agerwala, T. and Cocke, J., A High Performance Reduced Instruction Set Processors, IBM Research Division, March 31, 1987, pp. 1-61.	
	NPL18	Aiken, A. and Nicolau, A., "Perfect Pipelining: A New Loop Parallelization Technique," <i>ESOP '88, 2nd European Symposium on Programming</i> , Springer, ISBN 3-540-19027-9, 1988, pp. 221-235.	
	NPL19	Albert, A.J., "User Configurable Local Storage Registers," <i>IBM Technical Disclosure Bulletin</i> , IBM, Vol. 18, No. 12, May 1976, pp. 3971-3975.	
	NPL20	Birman, M. et al., "Design of a High-Speed Arithmetic Datapath," <i>Proceedings 1988 IEEE International Conference on Computer Design: VLSI in Computers &amp; Processors</i> , IEEE, October 3-5, 1988, pp. 214-216.	

Examiner Signature		Date Considered	04/11/06
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


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	NPL21	Charlesworth, A.E., "An Approach to Scientific Array Processing: The Architectural Design of the AP-120B/FPS-164 Family," Computer, IEEE, Vol. 14, September 1981, pp. 18-27.	
	NPL22	Colwell, R.P. et al., "A VLIW Architecture for a Trace Scheduling Compiler," Proceedings of the 2nd International Conference on Architectural Support for Programming Languages and Operating Systems, ACM, October 1987, pp. 180-192	
	NPL23	Foster, C.C. and Riseman, E.M., "Percolation of Code to Enhance Parallel Dispatching and Execution," IEEE Trans. On Computers, IEEE, December 1971, pp. 1411-1415.	
	NPL24	Goodman, J.R. and Hsu, W., "Code Scheduling and Register Allocation in Large Basic Blocks," Proceedings of the 2nd International Conference on Supercomputing, ACM Press, 1988, pp. 442-452	
	NPL25	Goodman, J.R. and Hsu, W., "Code Scheduling and Register Allocation in Large Basic Blocks," Proceedings of the 2nd International Conference on Supercomputing, ACM Press, 1988, pp. 442-452	
	NPL26	Gross, T.R. and Hennessy, J.L., "Optimizing Delayed Branches," Proceedings of the 5th Annual Workshop on Microprogramming, IEEE, October 5-7, 1982, pp. 114-120.	
	NPL27	Groves, R.D. and Oehler, R., "An IBM Second Generation RISC Processor Architecture," COMPCON 90: 35th IEEE Computer Society International Conference, IEEE, Feb. 26, 1990, pp. 166-172.	
	NPL28	Horst, R.W. et al., "Multiple Instruction Issue in the NonStop Cyclone Processor," Proceedings of the 17th Annual International Symposium on Computer Architecture, ACM Press, 1990, pp. 216-226.	
	NPL29	Hunter, C., Series 32000 Programmer's Reference Manual, Prentice-Hall Inc., Englewood Cliffs, NJ, 1987, pp. 2-4, 2-21, 2-23, 6-14 and 6-126.	
	NPL30	Hwang, K. and Briggs, F.A., Computer Architecture and Parallel Processing, McGraw-Hill, 1984, pp. 264-280.	

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9	NPL31	Hwu, W. W. and Patt, Y.N., "Checkpoint Repair for High-Performance Out-of-Order Execution Machines," IEEE Transactions On Computers, IEEE, Vol. C-36, No. 12, December 1987, pp. 1496-1514.	
9	NPL32	Hwu, W.W. and Chang, P.P., "Exploiting Parallel Microprocessor Microarchitectures with a Compiler Code Generator," Proceedings of the 15th Annual Symposium on Computer Architecture, IEEE, June 1988, pp. 45-53.	
4	NPL33	Hwu, W. and Patt, Y.N., "HPSm, a High Performance Restricted Data Flow Architecture Having Minimal Functionality," Proceedings from ISCA-13, IEEE, Tokyo, Japan, June 2-5, 1986, pp. 297-306.	
10	NPL34	IBM Journal of Research and Development, IBM, Vol. 34, No. 1, January 1990, pp. 1-70.	
17	NPL35	Johnson, W. M., Super-Scalar Processor Design, (Dissertation), Copyright 1989, 134 pages.	
8	NPL36	Jouppi, N.P. and Wall, D.W., "Available Instruction-Level Parallelism for Superscalar and Superpipelined Machines," Proceedings - 3rd International Conference on Architectural Support for Programming Languages and Operating Systems, ACM Press, April 1989, pp. 272-282.	
10	NPL37	Jouppi, N.H., "Integration and Packaging Plateaus of Processor Performance," International Conference of Computer Design, IEEE, October 2-4, 1989, pp. 229-232.	
10	NPL38	Jouppi, N.P., "The Nonuniform Distribution of Instruction-Level and Machine Parallelism and Its Effect on Performance," IEEE Transactions on Computers, IEEE, Vol. 38, No. 12, December 1989, pp. 1645-1658.	
1	NPL39	Kanai, T. et al., "A 16-bit Microcomputer FPD70423 for Serial Communication," NEC Research & Development, NEC, Vol. 32, No. 3, July 1991, pp. 350-360.	
1	NPL40	Keller, R.M., "Look-Ahead Processors," Computing Surveys, ACM, Vol. 7, No. 4, December 1975, pp. 177-195.	

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	NPL42	Lam, M.S., "Instruction Scheduling For Superscalar Architectures," Annu. Rev. Comput. Sci., Annual Reviews, Inc., Vol. 4, 1990, pp. 173-201.	
	NPL43	Lee, R.B., "Precision Architecture," IEEE Computer, IEEE, pp. 78-91, January 1989.	
	NPL44	Maejima, H. et al., "A 16-bit Microprocessor with Multi-Register Bank Architecture," Proc. Fall Joint Computer Conference, IEEE, Nov. 2-6, 1986, pp. 1014-1019.	
	NPL45	Margulis, N., "i860 microprocessor internal architecture," Microprocessors and Microsystems, Butterworth & Co. Ltd., Vol. 14, No. 2, March 1990, pp. 89-96.	
	NPL46	Miller et al., "Exploiting Large Register Sets," Microprocessors and Microsystems, Butterworth-Heinemann Ltd., Vol. 14, No. 6, July 1990, pp. 333-340.	
	NPL47	Molnar, K. et al., "A 40 MHz 64-Bit Floating-Point Co-Processor," 1989 IEEE International Solid-State Circuits Conference, IEEE, February 1989, pp. 48, 49 and 287.	
	NPL48	Murakami, K. et al., "SIMP (Single Instruction stream/Multiple instruction Pipelining): A Novel High-Speed Single-Processor Architecture," Proceedings of the 16th Annual International Symposium on Computer Architecture, ACM Press, 1989, pp. 78-85.	
	NPL49	Odnert, D. et al., "Architecture and Compiler Enhancements for PA-RISC Workstations," COMPCON Spring '91 digest of papers, IEEE, 1991, pp. 214-218.	
	NPL50	Patt, Y.N. et al., "Critical Issues Regarding HPS, A High Performance Microarchitecture," Proceedings of the 18th Annual Workshop on Microprogramming, ACM, December 1985, pp. 109-116.	

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<b>SECOND SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> (Use as many sheets as necessary)			Application Number	10/060,086	
			Filing Date	January 31, 2002	
			First Named Inventor	Sanjiv GARG	
			Art Unit	2154	
			Examiner Name	Larry D. Donaghue	
Sheet	8	of	9	Attorney Docket Number	2047.0600007

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume number, publisher, city and/or country where published	T <sup>2</sup>
9	NPL51	Patt, Y.N. et al., "HPS, A New Microarchitecture: Rationale and Introduction," Proceedings of the 18th Annual Workshop on Microprogramming, ACM, December 1985, pp. 103-108.	
4	NPL52	Patterson, D. A. and Séquin, C.H., "A VLSI RISC," Computer, IEEE, Vol. 15, No. 9, September 1982, pp. 8-18 and 20-21.	
1	NPL53	Pleszkun, A.R. and Sohi, G.S., "The Performance Potential of Multiple Functional Unit Processors*," Proceedings of the 15th Annual Symposium on Computer Architecture, IEEE, June 1988, pp. 37-44.	
11	NPL54	Pleszkun, A.R. et al., "WISQ: A Restartable Architecture Using Queues," Proceedings of the 14th International Symposium on Computer Architecture, ACM, June 1987, pp. 290-299.	
11	NPL55	Russell, R.M., "The CRAY-1 Computer System," Communications of the ACM, ACM, Vol. 21, No. 1, January 1978, pp. 63-72.	
11	NPL56	Smith, M.D. et al., "Boosting Beyond Static Scheduling in a Superscalar Processor," ACM SIGARCH Computer Architecture News, ACM Press, Vol. 18, Issue 3, June 1990, pp. 344-354.	
11	NPL57	Smith, J.E. and Pleszkun, A.R., "Implementation of Precise Interrupts in Pipelined Processors," Proceedings of the 12th Annual International Symposium on Computer Architecture, IEEE, June 1985, pp. 36-44.	
11	NPL58	Smith, M.D. et al., "Limits on Multiple Instruction Issue," Proceedings of the 3rd International Conference on Architectural Support for Programming Languages and Operating Systems, ACM, April 1989, pp. 290-302.	
11	NPL59	Sohi, G. S. and Vajapeyam, S., "Instruction Issue Logic For High-Performance, Interruptable Pipelined Processors," Proceedings of the 14th Annual International Symposium on Computer Architecture, ACM, June 2-5, 1987, pp. 27-34.	
11	NPL60	Steven, G.B. et al., "HARP: A parallel pipelined RISC processor," Microprocessors and Microsystems, Butterworth & Co. Ltd., Vol. 13, No. 9, November 1989, pp. 579-586.	

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<i>el</i>	NPL61	Thomton, J.E., Design of a Computer: The Control Data 6600, Control Data Corporation, 1970, pp. 58-140.	
<i>fl</i>	NPL62	Tjaden, G.S. and Flynn, M.J., "Detection and Parallel Execution of Independent Instructions," IEEE Transactions On Computers, IEEE, Vol. C-19, No. 10, October 1970, pp. 889-895.	
<i>fn</i>	NPL63	Tjaden, G.S. and Flynn, M.J., "Representation of Concurrency with Ordering Matrices," IEEE Transactions On Computers, IEEE, Vol. C-22, No. 8, August 1973, pp. 752-761	
<i>ml</i>	NPL64	Tjaden, G.J., Representation and Detection of Concurrency Using Ordering Matrices, (Dissertation), UMI Dissertation Services, 1972, pp. 1-199.	
<i>nl</i>	NPL65	Tjaden, G.J., Representation and Detection of Concurrency Using Ordering Matrices, (Dissertation), UMI Dissertation Services, 1972, pp. 1-199.	
<i>to</i>	NPL66	Uht, A.K., "An Efficient Hardware Algorithm to Extract Concurrency From General-Purpose Code," Proceedings of the 19th Annual Hawaii International Conference on System Sciences, University of Hawaii, IEEE, 1986, pp. 41-50.	
<i>wo</i>	NPL67	Wedig, R.G., Detection of Concurrency In Directly Executed Language Instruction Streams, (Dissertation), UMI, June 1982, pp. 1-179.	
<i>fn</i>	NPL68	Weiss, S. and Smith, J.E., "Instruction Issue Logic in Pipelined Supercomputers," IEEE Transactions on Computers, IEEE, Vol. C-33, No. 11, November 1984, pp. 1013-1022 (77-86).	
<i>nl</i>	NPL69	Baker, T., "Headroom and Legroom in the 80960 Architecture," COMPCON Spring '90: Thirty-Fifth IEEE Computer Society International Conference, IEEE Computer Society, 1990, pp. 299-306.	
<i>wo</i>	NPL70	Copy of European Search Report from EP Appl. No. 99102406.8, 3 pages, Completed November 24, 1999.	

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